

ABSTRACT OF DISCLOSURE

In order to accurately correct environmental variation and aged variation of gamma characteristics, RGB tone data are color-converted to be formed as CMYK tone data, then a tone correction for improving gamma characteristics is performed on the CMYK tone data. The CMYK tone data after the tone correction are subjected to half-toning to be converted into half-tone data. On the basis of the half-tone data, an image is printed by an electrophotography process. A test image is printed at a predetermined timing. A sensor reads the test image. On the basis of a signal of the sensor, a correction table for the tone correction is calculated by correction table calculation. In the tone correction, 8-bit input tone data are converted into 10-bit corrected tone data. Since the tone correction is performed on CMYK data in place of RGB data and the bit number of tone data is extended from 8 bits to 10 bits by the tone correction, the accuracy of improvement of gamma characteristics is enhanced.